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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------|-------------|----------------------|----------------------|------------------|
| 09/957,471 | 09/21/2001 | Kimihiko Nishioka | P 283651 OL97501N-US | 4064 |
| 909 | 7590 | 12/18/2003 | EXAMINER | |
| PILLSBURY WINTHROP, LLP | | | LESTER, EVELYN A | |
| P.O. BOX 10500 | | | ART UNIT | |
| MCLEAN, VA 22102 | | | PAPER NUMBER | |
| | | | 2873 | |

DATE MAILED: 12/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------|-----------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/957,471 | NISHIOKA ET AL. | |
| | Examiner | Art Unit | |
| | Evelyn A. Lester | 2873 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>9-21-01</u> | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Specification

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 4, 5, 7-10, 12 and 13 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a combination of elements, does not

Art Unit: 2873

reasonably provide enablement for the single means claims indicated above. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

A single means claim, such as where a means recitation does not appear in combination with another recited element of means, is subject to an undue breadth rejection.

In claim 4, the scope encompasses every conceivable optical element with a variable characteristic, not even a specific characteristic that uses at least two non-specific driving methods. There is no disclosure, which shows that the Applicants had possession at the time of their invention any and all conceivable structures for an optical element with at least any two or more driving methods. The same line of reasoning applies to claims 5, 7-10, 12 and 13.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(f) he did not himself invent the subject matter sought to be patented.

5. Claims 1-20 are rejected under 35 U.S.C. 102(f) because the applicant did not invent the claimed subject matter.

Art Unit: 2873

A U.S. published patent application having no common inventor with the Applicants' U.S. patent application discloses several of the embodiments of the Applicants' invention, wherein the drawing Figures are nearly identical. Please note:

APPLICANTS' APPLICATION

Figure 3
Figure 4
Figure 5
Figure 6
Figure 7
Figure 8
Figure 9
Figure 11
Figure 13
Figure 14
Figure 15
Figure 16
Figure 17
Figures 18a and 18b
Figure 19
Figure 21
Figure 24
Figure 26
Figure 27
Figure 28
Figure 29
Figure 31

OTHER INVENTORS' APPLICATION

Figure 32
Figure 33
Figure 34
Figure 35
Figure 36
Figure 37
Figure 38
Figure 39
Figure 40
Figure 41
Figure 42
Figure 43
Figure 58
Figures 59 and 60
Figure 61
Figure 45
Figure 63
Figure 64
Figure 65
Figure 66
Figure 67
Figure 44

The Brief Descriptions for each of the drawing Figures of the other inventors' application clearly indicate that the Figures depict an embodiment of their invention. How is it that two different inventorships could derive the same inventive embodiments? Therefore, the claims are rejected under 35 U.S.C. 102(f) until such time that evidence is

Art Unit: 2873

presented showing who are the actual inventors of the disclosed invention(s). Note MPEP 2137.

6. Claims 10, 11, 16 and 17 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Iwasaki (JP 6-258502 A).

Iwasaki discloses the claimed invention of a variable optical characteristic optical element, such as a variable focus lens, having a transparent member (11 or 12) in the vicinity of a surface on at least one side of the optical element, i.e. lens, which protects the liquid from oozing out of the optical element. Further, Iwasaki discloses the claimed invention of an optical apparatus having a space (2 or 13 or 23) facing a variable optical characteristic optical element is closed with a transparent member (i.e. Figure 3, element 11 or 12) and a mechanical member (8 or 18).

7. Claims 1-6, 10, 11, 16, 17 and 19 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Michelet (U.S. patent 4,289,379).

Michelet discloses the claimed invention of a variable optical characteristic optical element utilizing at least two selected [methods of driving] including electric field through electrodes (8-10), piezoelectric material layers (6,7) and the fluid (13) under pressure, wherein Michelet's invention is a lens and a mirror element, noting reflecting layer (25).

With respect to claims 10 and 11, Michelet further includes a transparent member (62) in the vicinity of at least one surface of the optical element and the mechanical member being any of the movable surfaces.

8. Claim 8 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Colbourne et al (U.S patent 5,915,063).

Colbourne et al disclose the claimed invention of a variable optical characteristic mirror, which uses a magnetostrictive (18,19) material. Note Colbourne et al in Figure 1 and its accompanying text.

9. Claims 1, 3-7 and 9 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Schachar (U.S. patent 5,774,274).

Schachar discloses the claimed invention of a variable optical characteristic optical element as noted in Figure 9 and at column 8, line 61 to column 9, line 54. Schachar includes utilizing a piezoelectric effect and a magnetostriction, as well as fluid pressure.

10. Claim 13 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Hager et al (U.S. patent 4,494,003).

Hager et al disclose the claimed invention of a variable focus lens by utilizing a photomechanical effect, as noted in column 2, lines 35-58.

Art Unit: 2873

11. Claims 1, 2, 4, 12 and 14 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kuzyk et al (U.S. patent 5,682,447).

Kuzyk et al disclose the claimed invention of a variable optical characteristic optical element, such as a mirror, utilizing a photomechanical effect and a temperature change, as noted in the Invention Summary beginning at column 1, line 65; also at column 4, lines 31-49.

12. Claims 16, 18 and 20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Miles (U.S. patent 6,055,090).

Miles discloses the claimed invention of an optical apparatus, such as a variable mirror, characterized in that a space or cavity (between elements 206 and 208) facing a variable optical characteristic optical element is closed with a transparent member (204) and a mechanical member (208), wherein the mechanical member is air-permeable in the layer formed of reflective members (208) allows for air flow out from under each mechanical member to permit the reflective layer to move as desired.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Evelyn A. Lester whose telephone number is (703) 308-4943. The examiner can normally be reached on M- F, subject to I-flex schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y. Epps can be reached on (703) 308-4883. The fax phone

Art Unit: 2873

number for the organization where this application or proceeding is assigned is (703) 308-7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


Evelyn A. Lester
Primary Examiner
Art Unit 2873